

### REMARKS

Claims 1-10 have been previously canceled; claims 18, 27, 34 and 35 are currently canceled by way of this amendment. Claims 11, 19, 20 and 28 are amended and no new claims have been added. Thus, claims 11-17, 19-26, 28-33, 34, and 36 are currently pending and presented for examination. Applicants respectfully request reconsideration and allowance of the pending claims in view of the foregoing amendments and the following remarks.

#### Response to Rejections Under Section 102:

Claims 11-13, and 15 stand rejected under 35 U.S.C § 102(b), the Examiner contending that these claims are anticipated by Smith et al.

As a preliminary matter, Applicants IDS identifies two references by Smith et al. (USPN 5,523,701 and 4,464,866) and the Examiner has failed to indicate which Smith et al. reference or the appropriate portions thereof are being applied for the 102(b) rejections.

Applicants' Claims 11 recites in part:

"determining an electrical draw comprising at least one of a voltage draw or a current draw of a first subsystem of a machine during its operation; determining wear and tear present in a second machine subsystem based on the determined draw in the first subsystem; and inferring a material type or a material quality of a material being processed via the determined electrical draw."

In contrast, the '701 reference teaches determining a machine tool quality by performing a frequency analysis on an electrical input to a system drive motor but is silent as to "inferring a material type or a material quality of a material being processed via the determined electrical draw" as claims in Applicants claim 11.

Furthermore, the '866 reference teaches determining a machining surface finish quality by measuring a variety of system input parameters but is silent regarding "determining an electrical draw ... of a first subsystem of the machine system during its operation" as claims in Applicants claims 11.

MPEP 2313 states "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM." Claim 11 is not anticipated by either the '701 or the '866 reference as discussed above. Furthermore, claims 12-13 and 15 which depend on claim 11 are also patentable at least based on their dependence from claim 11 as well as based on their own merits. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejections.

Response to Rejections Under Section 103:

Claims 14, 16, 17 and 19-36 stand rejected under 35 U.S.C § 103(a) as being obvious over Smith et al., stating the limitations in the above claims being obvious design choices.

Applicants submit that the Examiner has engaged in impermissible hindsight reasoning, (MPEP 2142). Furthermore, the Federal Circuit has stated:

rejections on obviousness **cannot be sustained with mere conclusory statements**; instead, there must be some **articulated reasoning** with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). [emphasis added]

Applicants respectfully submit that the Examiner has failed to articulate reasoning to support a legal conclusion of obviousness.

Furthermore, Independent claims 19 and 28 recite significant process or structural limitations that are not taught in the cited prior art and that go far beyond mere design choice. In particular, claim 19 requires:

"determining an electrical draw comprising at least one of a voltage draw or a current draw of a first subsystem of the machine system during its operation;  
determining operational effects in a second subsystem in the machine based on the determined draw in the first subsystem; and  
inferring a material type or a material quality of a material being processed via the determined electrical draw."

Claim 28 requires:

"a determining device that determines an electrical draw of at least one of a current or voltage draw of the drive during operation in communication with the drive;

an inferring device that infers wear and tear present in the coal grinding mill on the basis of electrical draw determined in the drive; and

a further inferring device that infers a material type or a material quality of a material being processed via the determined electrical draw"

Applicants respectfully submit that these combination of elements involve novel and nonobvious relationships that were not previously appreciated in the prior art and that they are not mere design choices. These limitations are significant inventive steps that can not be summarily dismissed by the Examiner as mere design choice without some basis demonstrated in the art that similar design choices are routinely known.

In light of the preceding arguments, Applicants respectfully submit that independent claims 11, 19 and 28 are patentable and claims 14, 16, 17, 20-26, 29-33, 34, and 36 which depend on claims 11, 19 or 28 are also patentable at least based on their dependence from claims 19 or 28 as well as based on their own merits. Therefore, Applicants respectfully request that the Examiner withdraw the Section 103 rejections.

Conclusion

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. All correspondence should continue to be directed to our below-listed address. Accordingly, Applicants respectfully request that the Examiner reconsider the objections and rejections and timely pass the application to allowance. Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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By: \_\_\_\_\_



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